EXPLORING FACTORS AFFECTING POSTGRADUATE STUDENT RETENTION WHEN ENROLLING VIA ACCREDITATION FOR PRIOR EXPERIENTIAL LEARNING (APEL)

Nooraini binti Youp
Open University Malaysia
nooraini_youp@oum.edu.my

Norazah Mohd Suki
University Utara Malaysia
Norazah.mohd.suki@uum.edu.my

ABSTRACT

Retaining of postgraduate Masters Degree students' are often scrutinised, as are subsets of graduate students such as under represented populations. However, little emphasis is placed on the largest component of graduate education, namely, students enrolled in master's degree programmes. When a student registers in an academic programme at a university, both enter into a partnership intended to culminate with the student earning a masters degree awarded by the institution. Both have responsibilities in this partnership, students must put in the effort to complete the intended programme successfully, while institutions must provide appropriate resources to allow students to succeed. An increasing number of students are enrolling in the Master Degree programmes through Accreditation of Prior Experiential Learning (APEL) in Open University Malaysia (OUM). Although students enrol into a programme for a variety of reasons, their completion rate for the Masters programme does not commensurate with the initial enrolment numbers. The purpose of this research is to explore factors affecting postgraduate students' retention when enrolling via accreditation of prior experiential learning (APEL) in Open University Malaysia. Results will be analysed through a series of descriptive statistics of factors like; 1) self-motivation and 2) academic performance that contributes to the students' commitment to stay in their programmes. This study is important as it aids open distance learning institutions to remain sustainable.

Keywords: *Open and Distance Learning, Student Retention, APEL, Self-motivation, Academic Performance*

INTRODUCTION

Many institutions pay close attention to undergraduate recruitment and retention, in contrast to the lesser emphasis placed on graduate enrolment. Little emphasis is placed on the largest component of graduate education, namely, students enrolled in master's degree programmes. When a student registers in academic programmes in a university, they are both entering into a partnership. Both have responsibilities in this partnership; students must put in effort to complete the intended programme and the institution must provide appropriate resources to allow students to succeed.

The establishment of ODL institutions as an enabler to education is widely accepted. However minimal research is available to support students' learning in ODL (Dzakiria, 2006; Mannan, 2007; Serwatka, 2005; Sweet, 1986). Despite extensive improvements and developments in Open and Distance Learning (ODL), student dropout or attrition rates in ODL around the world continue to be very high and reportedly to be in the range of 30% – 45%. Various reasons and factors have been associated with the attrition rate in ODL but the strongest ones are linked to the leaner demography (i.e age factors, digital divide, etc) which may very likely attribute to the statistics (Harold & Russum, 2000; Dzakaria, 2006; Hara & Kling, 2001; Hughes, 2004; Kember, 1989; Mannan, 2007; Wickersham & Dooley, 2001).

Some researchers have proposed that academic integration mediates the relationship between a variety of social factors and academic performance (Bean & Eaton, 2001; Cabrera, Nora & Casteneda, 1993; Rivas, Sauer, Glynn, & Miller, 2007). Even previous research has established that both academic motivation and academic integration are related to academic performance, the present study focuses on how academic motivation and academic integration work together to predict academic performance. Although a large body of evidence regarding context specificity in performance and learning can be cited to contradict a generalised learning theory (Smith, 1995; Smith et.al, 1994), it is likely that the latter viewpoint still plays an influential role in educational policy development and decision making. The failure to support students and satisfy their needs in learning may increase the number of non-completion rates and increase the push factor to non-completion in the respective institutions.

Open University Malaysia learning centre in the Seberang Jaya has a registered total of 553 postgraduate students in various master's programmes since 2004. The study duration for a Master's Degree is 2 years based on the university designed programmes. From the total number of students registered, 370 of them have been in the system for more than 2 years. From the total number of registered post graduate students, only 183 students are within the two year time frame of study. Of the 370 students, only 24 percent are active students. Only 41 percent graduated, 24 percent are active, 8 percent have completed, 20 percent have been dormant and 6 have quit from the study.

Table 1: Number of Master Students in OUM Seberang Jaya Who Studied for More Than 2 Years

Students Status	Number of Students	Percentage
Active	88	24
Changed program	5	1
Completed	29	8
Dormant	74	20
Graduated	149	41
Quit	24	6
Terminated	1	0
Total	370	

The purpose of this research is to explore factors affecting postgraduate students retention when enrolling via accreditation of prior experienced learning (APEL) in Open University Malaysia. This study is important as it will help OUM to sustain the master degree students till they complete their studies.

Following this introduction, the literature review is described next. The Methodology employed in this research is described in the subsequent section, while data analysis is presented in section 4. Section 5 will discuss the research findings whereas the conclusion is presented in the last section.

LITERATURE REVIEW

This section reviews literature pertaining to issues of self-motivation and academic performance.

Self-motivation

Students enter the university with different types of motivation, which is one important predictor of academic performance (Dweck, 1986; Vansteenkiste, Lens & Deci, 2006; Hulleman, Schrager, Bodmann & Harackiewicz, 2010; Kusurkar, Ten Cate, Vos CM, Westers P, Croiset, 2013). Motivation has been identified as one of the most powerful determinants of students' success or failure in school (Hidi & Harackiewwicz, 2000).

Motivation is defined as one's wish and will to behave in a directed way which in turn initiates as a series of actions to choose or to engage in particular activities (Pintrich & Schunk, 1996). Motivation in the academic field refers to the reasons the student wants to attend, engage in, and put effort in learning and achieving in school (Beck, 2004). In terms of behaviour, academic motivation results in increased student involvement in activities related to learning (Connell & Welborn, 1991). Achievement need is a concern for achieving excellence through individual efforts (Murray, 1938). It is argued that the need for achievement is essential since it drives individuals to perform well or to improve their performance (McClelland, 1985). Not many researches can be found in the area of learning and school performance, as this theory is not considered suitable for school students and academic achievement. It is recommended that achievement need is yet another forceful inner motivator that students should have in order to drive them to work hard in the academic field. The most discussed theory of motivation is probably learning goals which emphasize the reasons why students learn (Smith, Duda, Allen, & Hall, 2002). Students with goals learn because they want to acquire new skills, improve their competence, increase knowledge and understanding by putting in efforts during learning. In contrast, students who adopt performance goals prefer to get favourable judgements about their competence, wanting to show that they have good ability and avoid signs of failure as well as outdo other students.

Learners require motivation and persistence to stay on their ODL success as a career building opportunity. In fact, students' motivation and persistence has been identified as important factors that could affect student completion rates. ODL students must be able to take full responsibility for their learning. They need to be more independent and be able to organise their learning within their busy life as working adults who may have families, children and chores to undertake besides the ODL program that they have registered in. A small reward could potentially lead to continuous learning and improve overall motivation. Rewarding study credits for relevant working experiences could also improve motivation. This in turn could also be made into an institutional strategy to promote lifelong learning. Such an effort could save the adult learners time, money and other resources that help them to complete their programmes.

Motivation has always been associated with academic performance in college or university. However there are numerous motivational variables in the literature it is yet to be identified as to which type of motivation affects performance best. Lack of motivation is when individuals are not motivated because they do not perceive any reward for their behaviour. Therefore, students do not feel responsible for outcomes that affect them. In this case, a student may attend college because he feels that he has no other alternative or is coerced to attend by his parents. The theory of future time reference suggested that some students see the relationship between what they do in present and what they will gain in future (Simons et.al, 2004). Therefore, hardworking students are often those who appreciate the fact that if they perform well in school, they may most probably perform better in future higher learning and career. In fact, they believe that their present success in school will better ensure their attainment of future goals and ambition. Thus, this study predicts that students who had high level of future time reference tend to perform better in their study.

Academic Performance

Academic performance is the driving factor that influences a person to attend school and obtain a degree. While there have been many theories of general motivation (Marsh, Craven, Hinkley, & Debus, 2003; Middleton & Toluk, 1999; Rotte, 1966). Many motivation theories simply make distinctions between autonomous behaviour, that which is done with a personal intention or choice, and controlled behaviour, that which is done unwillingly or out of compliance (Heider as cited by Deci, Vallerand, Pelletier, & Ryan, 1991; Sheldo & Elliot, 1998). Achievement need is a concern for achieving excellence through individual efforts (Murray, 1938). It is discussed that the need for achievement is essential since individuals to perform well or to improve their performance (McClelland, 1985). Many theories have found a strong positive correlation between need for achievement and goal attainment (Hollenbeck et al. 1989; Slocum et al, 2002). Not surprisingly, the entering characteristic which has the most influence on retention is prior academic achievement (Ishler & Upcraft, 2005). High school GPA is the most useful in predicting retention; performance on standardized tests does not add much to what can already be predicted based on high school GPA. Research has found that high school GPA accounted for 8.6 percent of the variance in student retention, and that including scores only increased the amount of variance accounted for to just over 10% (Astin, 1997). High school GPA is a better predictor of persistence compared to standardized test scores (Robbin, 2004). Academic performance in the first semester and subsequent semesters of college appear to be the best predictor of student persistence (Belcheir, 1997). After reviewing the literature on student persistence, Pascarella and Terenzini (2005) concluded that the grades earned during the first year of college may well be the single best predictor of student persistence even after taking into account students' entering characteristics. The more academically successful a student is, the more likely they will persist (Stassen, 2003). Academic performance and retention are interconnected; both are within the institutions locus of influence (Astin, 1997). In short, while the student's entering characteristics are important, institutions can influence both the academic performance and retention of their students a great deal.

The academic performance and motivation of traditional education (full-time students) and distance learning students have been examined in many studies. Regarding performance the studies reported better academic performance for non-traditional learners (Iverson, Colky, & Cyboran, 2005; Navarro & Shoemaker, 2000; Williams, 2006) but other studies have reported no significant difference in the academic performance (Haynes & Dillon, 1992; McDonnell et al., 2011; Woo & Kimmick, 2000).

METHODOLOGY

Participants and Procedure

A quantitative research design was applied in this research by distributing a structured self-administered questionnaire among 289 postgraduate students in OUM Seberang Jaya learning centre. Data was collected using purposive sampling technique whereby eligibility as participants was based on the condition that they exist and registered masters degree students in OUM Seberang Jaya who has enrolled since year 2004. Of these, 178 have completed the survey registering a response rate of 62%. This number of responses is adequate as it tops the criteria set by Hair et al. (2017).

Questionnaire Development and Instrument

The questionnaire was designed in two-sections. The first part of the questionnaire contained socio-demographic characteristics such as gender, age, types of entry qualification, years since joining the masters degree program, results obtained by semester, status of study, interest in pursuing the program, and intention to complete the program. The final part of the questionnaire contained measurement items on satisfaction for self motivation and academic performance to pursue the study.

Statistical Techniques

The data was analyzed using the descriptive statistics supported by the Statistical Package for the Social Science (SPSS) version 22 for purposes of examining the research objectives.

Data Analysis

A total of 178 respondents have given feedback on the questionnaires given to 289 Masters Degree students in OUM Seberang Jaya. From the total of 178 respondents, 41 were registered for the Masters Degree through APEL entry requirement. This means that OUM Seberang Jaya has 23 percent respondents whom studied for the Masters Degree through APEL. Even though the number of the respondents is small, but the feedback from the survey is still justified throws light on why they are retained in OUM.

Table 2: Socio-demographic Profile of Respondents

Variables		Frequency	Percentage
Gender	Male	25	61
	Female	16	39
Age	31 – 35	14	34.15
	35 – 40	10	24.39
	41 – 45	8	19.51
	46 – 50	8	19.51
	Above 60	1	2.44
Working experience	5 – 10	11	26.83
	11 – 20	20	48.78
	21 – 30	1	2.44
	31 – 40	9	21.95
Year of Study	1	9	21.95
	2	22	53.66
	3	6	14.63
	4	3	7.32
	5	1	2.44
GPA Result	3.67 – 4.00	15	36.59
	3.00 – 3.66	22	53.66
	2.67 – 2.99	3	7.32
	Below 2.00	1	2.44
Intend to complete the Master Degree	Strongly Agree	11	26.83
	Agree	22	53.66
	Normal	7	17.07
	Disagree	1	2.44
	Strongly Disagree	0	0.00

Academic results motivate me	Strongly Agree	14	34.15
	Agree	18	43.90
	Normal	6	14.63
	Disagree	3	7.32
	Strongly Disagree	0	0.00
Tutor guide and given support	Strongly Agree	10	24.39
	Agree	20	48.78
	Normal	9	21.95
	Disagree	2	4.88
	Strongly Disagree	0	0.00
I am happy with my studies	Strongly Agree	19	46.34
	Agree	13	31.71
	Normal	9	21.95
	Disagree	0	0.00
	Strongly Disagree	0	0.00
Having Masters Degree could mean better pay	Strongly Agree	10	24.39
	Agree	8	19.51
	Normal	16	39.02
	Disagree	5	12.2
	Strongly Disagree	2	4.88
Taking Masters Degree for self satisfaction	Strongly Agree	14	34.15
	Agree	21	51.22
	Normal	6	14.63
	Disagree	0	0.00
	Strongly Disagree	0	0.00
Taking Masters Degree for employment	Strongly Agree	3	7.32
	Agree	10	24.39
	Normal	10	24.39
	Disagree	12	29.27
	Strongly Disagree	6	14.63
Taking Masters Degree for family satisfaction	Strongly Agree	6	14.63
	Agree	14	34.15
	Normal	12	29.27
	Disagree	6	14.63
	Strongly Disagree	3	7.32
I am prepared for Masters Degree Program	Strongly Agree	14	34.15
	Agree	23	56.10
	Normal	4	9.76
	Disagree	0	0.00
	Strongly Disagree	0	0.00

I actively participate in classroom discussions	Strongly Agree	11	26.83
	Agree	23	56.10
	Normal	7	17.07
	Disagree	0	0.00
	Strongly Disagree	0	0.00
I want to have good grade	Strongly Agree	24	58.54
	Agree	14	34.15
	Normal	3	7.32
	Disagree	0	0.00
	Strongly Disagree	0	0.00
I exert effortsin doing assignments	Strongly Agree	18	43.90
	Agree	16	39.02
	Normal	7	17.07
	Disagree	0	0.00
	Strongly Disagree	0	0.00
I prepare for examinations	Strongly Agree	19	46.34
	Agree	18	43.90
	Normal	4	9.76
	Disagree	0	0.00
	Strongly Disagree	0	0.00
I study harder to improve my grade	Strongly Agree	21	51.22
	Agree	17	41.46
	Normal	3	7.32
	Disagree	0	0.00
	Strongly Disagree	0	0.00

Table 3 displays the descriptive data of the demographic profile of the respondents of whom 61 percent were male and 39 percent were female. A large number of students came from the age group of 31 – 35 years old comprising 34.15 percent, 24.39 percent from group 35 – 40 years old and 19.51 were from age 41 – 45 years old and 46 – 50 years old respectively. 26.83 percent of the respondents have worked between 5 to 10 years, 48.78 percent 11 – 20 years 2.44 worked between 21 – 30 years and 21.95 percent worked between 31 – 40 years. 75.61 percent of the respondents studied within two years and balance 24.39 percent have studied between 3 to 5 years. Most of the respondents' results are between grade point average (GPA) 3.00 to 4.00 which comprise 90.25 percent. Only 9.76 percent were below 3.00 GPA.

Reason for Taking the Program

Figure 1 displays the respondents who strongly agree and agree on the variables surveyed. 80 percent of the respondents were taking the Masters Degree for their self-satisfaction, 31.71 percent for their employment and 48.78 percent for family satisfaction. From this survey, it shows that self satisfaction for taking the programs is the top reason. 78 percent of the respondents were happy with their Masters Degree studies. 43.9 percent only agree that having a Masters Degree leads to better pay, 39.02 percent have responded as neutral and 17.08 percent has disagreed and strongly disagreed.

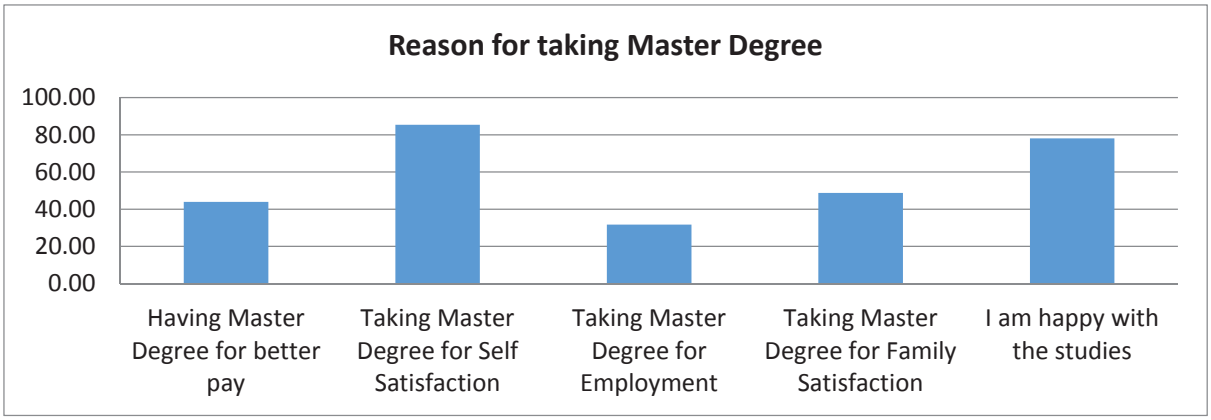

Figure 1: Reasons for Taking the Program

Reasons for Staying with the University

Figure 2 shows that 90.24 % of the respondents have obtained GPA result within range of 3.00 to 4.00. 80.49 percent have indicated that they would like to complete their study for the Masters Degree program. 78.05 percent have indicated that academic results motivate them to study the program. 73.17 % are satisfied with the tutor guide and support given to them. 90.24 percent are prepared for their Masters Degree program. This means that most of the students with APEL entry levels were satisfied with their Masters Degree program and they will sustain until they complete their study.

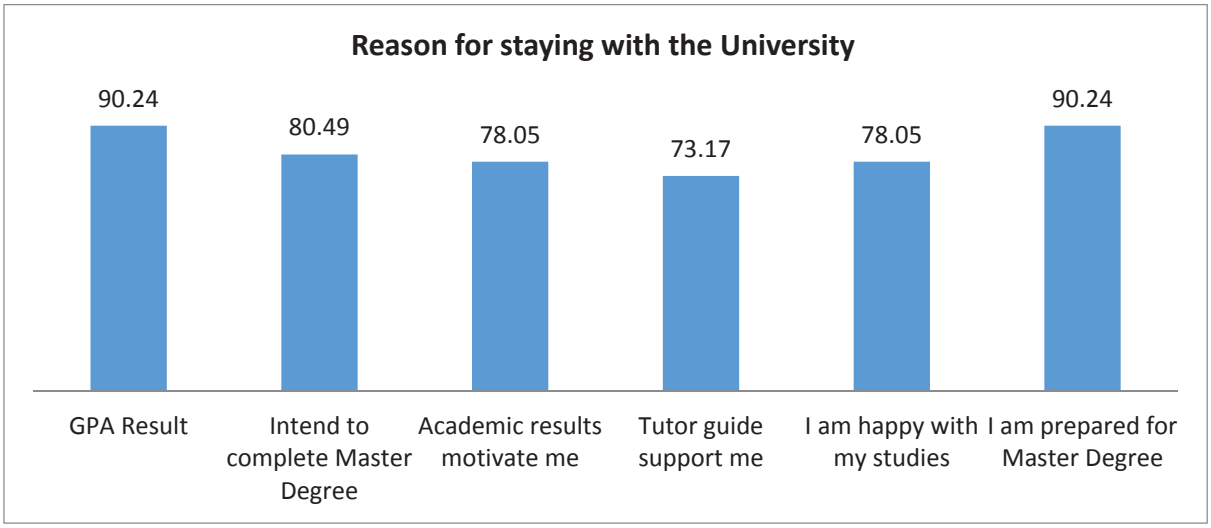

Figure 2: Reasons for Staying with the University

Self-motivation

Figure 3 displays that 82.3 percent participated in the classroom, 92.68 percent said that they want to have good grade. 82.93 % have confirmed that they exert effort to do assignments while 90.24 % gave feedback that they always prepare themselves for examinations and 92.68 confirmed that they study hard to improve their grade.

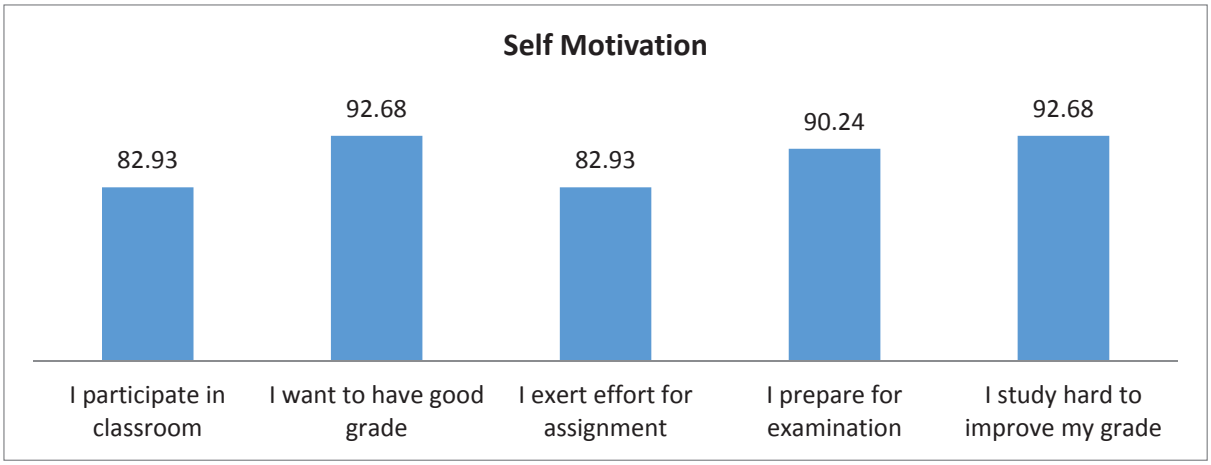

Figure 3: Self-motivation

DISCUSSION

This study explored factors affecting postgraduate students' retention when enrolling via APEL in Open University Malaysia. This descriptive research found that most of masters degree students pursued their studies due to self-motivation and academic performance. Satisfaction with the program, tutors and academic results are other strong factors for their retention in the university. There were 26.83 percent who strongly agreed and 53.66 percent who agreed to complete their Masters Degree with OUM, while 46.34 percent strongly agreed and 31.71 percent agree that they are happy with their studies in OUM. This finding implies that the university needs to ensure that the students' are happy studying with the university so that the students will sustain until they complete their studies. Additionally, satisfaction with tutors' guides and given support contributed 24.39 % who strongly agreed while 48.78% agreed. But 14.63 percent have given normal rating and 4.87 percent disagreed, this is an area into which the university should look into and seek to improve. A closer examination discovered that masters degree students have given most feedback as being satisfied with the quality of institutional support such as academic result, tutor guide and support, happiness with the university and active participation in the classroom. The feedback indicated that more than 70 percent were satisfied that these factors did contribute to student retention in the university.

CONCLUSION AND RECOMMENDATIONS

Self-motivation to accomplish was the only motivation type that appeared to have made a unique and formidable contribution to academic performance. Therefore it is reasonable to conclude that self-motivation predicts students' ability to adapt to the intellectual demands of a college. Retention and degree completion at the Masters Degree level are continuous challenges for programs and university stakeholders.

Past research has indicated different types of motivation that have been shown to strongly associate with performance. This is also concurrent with the assertion of some researchers that motivation cannot be explained by only one theory since people are surely driven by different types of motivation at different levels. Research has suggested that motivation does not act individually but may be interrelated, thus contributing to a wholesome effect on the motivation of students to achieve academically (Dowson & Meinerney, 2001). In response to this issue, this study has underscored that issues of students' masters degree retention rate are mostly influenced by motivational factors. The results of this study are aimed at numerous stakeholders, policy makers, higher education administrators; post graduate staff, faculty and students who are pursuing their masters degrees. The predictive power of student's motivation may assist

masters degree programs in developing strategies to enhance masters degree motivation towards ensuring that students persevere and complete the degree.

However, like other research, this study has some limitations. First limitation is that the research was conducted at single learning centre only, which may limit the applicability of the findings to other learning centre populations. The master's degree examined was one based on the experiences of students within OUM. Since this study was conducted with current students of the program, one possible limitation is that the accuracy of information from the students depends on their experience while in the program. However, there are fundamental similarities across master's degree programs of various disciplines.

REFERENCES

Astin, A.W. (1975). Preventing students from dropping out. San Francisco, CA: Jossey-Bass.

Bean, J. P., & Eaton, S. B. (2001). The psychology underlying retention practices. *Journal of College Student Retention, 3*, 73–89. http://dx.doi.org/10.2190/6R55-483028XG-18IJO

Beck, R. C. (2004). Motivation: Theories and principles (5th ed.) Upper Saddle River, NJ: Prentice.

Cabrera, A. F., Nora, A., & Castaneda, M. B. (1993). College persistence. Structural equation modelling test of an integrated model of student retention. *The Journal of Higher Education, 64*, 123–139.

Connell, J. P., & Welborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar, & L. A. Sroufe (Eds.), Self-processes in development: *Minnesota symposium on child psychology* (Vol. 23, pp. 167–216).

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human need and the self-determination of behaviour. *Psychological Inquiry, 11*, 227–268.

Dowson, M., & Mcinerney, D. M. (2001). Psychology Parameters of Students' Social and Work Avoidance Goals: A Qualitative Investigation. *Journal of Educational Psychology, 93*(1), 35–42.

Dzakiria, H, Mustafa C. S., & Bakar, H. A. (2006), Moving Forward with Blended Learning (BL) as a Pedagogical Alternative to Traditional Classroom Learning *Malaysian Online Journal of Instructional Technology (MOJIT)*, 391), 11–18.

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*, 1040–1048.

Hara, N., & Kling, R. (2001). Student distress in web-based distance education. *Educause Quarterly, 3*, 68–69.

Harold, H., & Russum, J. (2000). Factors influencing attrition rates in corporate distance education program. *Education at a Distance Journal, 14*(11), 20–32.

Haynes, K. J. M., & Dillon, C. (1992). Distance education: Learning outcomes, interaction and attitudes. *Journal of Education for Library and Information Studies, 33*, 32–42.

Hidi, S., & Harackiewicz, J. M. (2000). Motivation the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research, 70*, 151.

Hughes, J. A. (2004). Supporting the online learner. In T. Anderson and F. elloumi (Eds.) *Theory and practice of online learning* (pp 367–384). Canada: Athabasca University.

Hulleman, C. A., schrager, S. M., Bdmann, S. M., & Harackiewicz, J. M. (2010). A meta-analytic review of achievement goal measures: Different labels for the same construct or different constructs with similar labels. *Psychological Bulletin, 136*, 423–449.

Iverson, K. M., Colky, D. L., & Cyboran, V. (2005). E-learning takes the lead: An empirical investigation of learner differences in online and classroom delivery. *Performance Improvement Quarterly, 18*(4), 5–18.

Marsh, H. W., Craven, R. G., Hinkley, J. W., & debus, R. L. (2003). Evaluation of the bog-two-factor theory of academic motivation orientations: An evaluation of jing le-jangle fallacies. *Multivariate Behavioral Research*, 38, 189–224. http://dx.doi.org/10.1207/S153279906MBR3802_3

Middleton, J. A., & Toluk, Z. (1999). First steps in the development of an adaptive theory of motivation. *Educational Psychologist, 34*, 99–112. http://dx.doi.org/10.1207/s15326985ep3402_3

McClelland, D. C. (1985). Human Motivation, Cambridge University Press, New York, NY.

Murray. H. (1938). Explorations in Personality. Oxford University Press, New York, NY.

Navarro, P., & Shoemaker J. (2000). Performance and perception of distance learners in cyberspace. *The American Journal of Distance Education*, (14(2), 15–35.

Kember, D. (1989). An illustration with case studies of a linear-process model of drop-out from distance education, *Distance Education, 10*(2), 196–211.

Kusurkar R. A, Ten Cate T. J, Vos C. M., Westers P., & Croiset G. (2013). How motivation affects academic performance: a structural equation modelling analysis. *Advances in Health Sciences Education Theory Practise, 18*(1), 57–69.

Mannan, M. A. (2007). Student attrition and academic, and social integration. Application of Tinto's Model at the University of Papua New Guinea, *Higher Education, 53*, 147–165.

McDonnell, J., Jameson, J. M., Riesen, T., Polychronis, S., Crocket, M. A., & Brown, B. E. (2011). Comparison of on-campus and distance teacher education programs in severe diabilities. *Teacher Education and Special Education, 34*, 106–118.

Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theretica model. *The Journal of Higher Education, 51*, 60–75.

Pintrich, R. M., & Deci, E. L. (2000a). Self-Determination Theory and Facilitation of Intrinsic Motivation, Social Development, And Well-Being. *American Psychologist, 55*, 68–78.

Robbins, S. B., Lauver, K., Le, H., Davis, D. Langley, R., & Carlstron, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis, *Psychological Bulletin, 130*, 261–288. http://dx.doi.org/10.1037/0033-2909.130.2.261

Simons, J., Dewitte, S., & Lens, W. (2004). The effect of different types of instrumentality on motivational and cognitive variables. *British Journal of Educational Psychology, 74*, 343–360.

Smith, M., Duda, J., Allen, J., & Hall, H. (2002). Contemporary Measures of Approach and Avoidance Goal Orientations: Similarities and Differences. *British Journal of Educational Psychology, 72*, 155–190.

Serwatka, J. A. (2005). Improving retention in distance learning classes. *International Journal of Instructional Technology and Distance Learning, 4*(1), 1–9.

Sheldon, K. M., & Elliot, A. J. (1998). Not all personal goals are personal: Comparing autonomous and controlled reasons for goals as predictors of effort and attainment. Personality and Social Psychology Bulletin, 24, 546–557.

Smith, K. J., Davy, J. A., & Rosenberg, D. L. (2012). An empirical analysis of an alternative configuration of the Academic Motivation Scale. *Assessment in Education: Principles, Policy & Practice, 19*, 231–250. http://dx.doi.org1.1080/0969594X.2011.608347

Sweet, R. (1986). Student dropout in distance education: An application of Tinto's Model, *Distance Education, 7*(2), 201–213.

Tinto, V. (1975). Dropout from higher education: A teoreticalsysthesis or recent research. Review of Educational Research, 45, 80–125.

Tinto, V. (1993). Leaving college: Rethinking the causes and cures of student attrition. Chicago, IL: University of Chicago Press.

Vansteenkiste M., Lens W., & Deci E.L. (2006). Intrinsic Versus Extrinsic Goal Contents in Self-Determination Theory: Another Look at the Quality of Academic Motivation. *Educational Psychology, 41*(1), 19–31.

Wickersham, L. E., & Dooley, K. E. (2001). Attrition rate in a Swine Continuing Education Course Delivered Asynchronously, *Journal of Southern Agricultural Education Research, 51* (1), 289–303.

Williams, S. M. (2006). The Effectiveness of Distance Education in Allied Health Science Programs: A Meta-Analysis of Outcomes. *American Journal of Distance Education, 20*(3), 178–194.

Woo, M. A., & Kimmick, J. (2000), Comparison of Internet versus lecture instructional methods for teaching nursing research. *Journal of Professional Nursing, 16*, 132–139.